
Control of Inspection, Measuring and Test Equipment MPG 8730.5

Governing Procedure and Applicability

- ◆ Governing Procedure is MPG 8730.5
- ◆ MSFC Integrated Document Library at:
<http://inside.msfc.nasa.gov/MIDL?>
- ◆ Applicable to all Center organizations and to all on-site contractors performing work under the MSFC QMS
- ◆ Read the procedure and find out what is required of you!

Key Definitions

- ◆ Calibration Contact: Individual appointed to act as a single point of contact for one or more pieces of IM&TE
- ◆ Technical Monitor: MSFC employee assigned to monitor the Calibration Facility contractor and act as liaison between using orgs and the Calibration Facility contractor (Michael Haynes ext. 4-7933)

Key Definitions

Explanation of Categories

	Cat1***	Cat 2	Cat 4	Cat 5	Cat 3
Calibrated by CAL FAC or OCV	X	X			
Must be Calibrated to Use It	X	X	X	X	
Calibration Record Required	X	X	X	X	
Listed on an Org IM&TE List	MCMS	MCMS	X	X	
Tracking Records Required	X	X	X	X	
Assigned to a Calibration Contact					
Can be used on Flight Hardware					
* Required prior to use					
** Incidental use only					
MCMS is the Marshall Calibration Management System and its' associated Web Page					

***Category 1 items are in the recall program and must be maintained calibrated

Key Definitions

- ◆ Inspection, Measuring and Test Equipment (IM&TE) and Test Equipment: All of the measuring instruments, measurement standards, and reference materials, auxiliary apparatus, and software which are integral to an instrument that is necessary for the operation and calibration of the instrument.
- ◆ Equipment Control Number (ECN): A unique number assigned to equipment by the Property Management Division which are imprinted on a bar code label assigned to the equipment.

Five Processes Covered in MPG 8730.5

- ◆ Equipment Calibration by the ULO (3.1)
- ◆ Equipment Calibration by the Calibration Facility (3.2)
- ◆ Equipment Repair by Inst. Services Contractor (3.3)
- ◆ Equipment Calibration by an OCV (3.4)
- ◆ Calibration of New Equipment by an OCV (3.5)

Who Determines Where IM&TE Will Be Calibrated?

- ◆ Per MPG 8730.5: The ULO will determine whether IM&TE will be calibrated by the MSFC Calibration Facility, an OCV or by the ULO itself

Responsibilities

- ◆ Directors/Managers of ULOs shall:
 - Develop procedures for calibration and software verifications performed
 - Designate one or more Calibration Contacts to interface with the Calibration Facility
 - Provide names to Technical Monitor (TM)
 - Inform TM of changes in Calibration Contacts
 - Establish a tracking record for Cat I, II, IV and V IM&TE to provide traceability of use

Responsibilities

- ◆ Directors/Managers of ULOs shall:

- Review and disposition validity of previous results when IM&TE is found out of calibration and determine what subsequent action is required

- Maintain a list of Cat I, II, IV and V IM&TE for which each CC is responsible

- Cat I and Cat II IM&TE is listed in the MCMS Web Page

- Assure the List is current

Responsibilities

- ◆ Directors/Managers of ULOs shall:

- Ensure that Cat I or II IM&TE has a current calibration decal or limited use calibration decal before use

- Ensure that Cat. IV or V IM&TE is calibrated before use

- Ensure that environmental conditions are suitable

- Ensure IM&TE is stored, handled and used properly

Responsibilities

- ◆ Directors/Managers of ULOs shall:

- Select OCVs that are capable of performing the repair/calibration required

- The OCV must be certified by a nationally or internationally recognized authority with standards traceable to NIST

- A copy of the OCV's certification must accompany the calibration records

Responsibilities

- ◆ Calibration Contacts shall:

- Serve as the interface between the Calibration Facility and the ULO

- Assure the Calibration Facility if provided with the required information on MSFC Tag 15, a marked up copy of the recall report, or a marked copy of the MCMS Web Page report

- Submit new Cat I and II test equipment for an initial calibration unless calibrated at time of purchase

Responsibilities

◆ Responsibilities of the CC (Cont'd)

Submit a copy of calibration records to Calibration Facility for new equipment calibrated at time of purchase so a calibration decal can be assigned prior to use

Submit IM&TE for calibration in response to the monthly recall report

Notify the Calibration Facility of IM&TE put on excess

ULO Calibration Procedure Requirements

- ◆ Calibrations must be performed prior to use
- ◆ Calibrations must be traceable
- ◆ Calibrations must employ a defined process
- ◆ Calibrations must be documented
- ◆ Calibration indicators and their use must be described in an Organizational Work Instruction
- ◆ Calibrations must be for a defined period (as recommended by the manufacturer or not more than 1 year)

ULO Calibration Procedure Requirements

- ◆ Existing test software must be verified and documented
- ◆ New test software must be verified when installed into IM&TE or a facility
- ◆ Revisions to test software must be verified prior to use
- ◆ Proprietary software shall be certified by the manufacturer or verified by the user
- ◆ Test software verifications must be documented to permit repeating the verifications as necessary

Quality Records Maintained by Calibration Facility

◆ Calibration Test Reports	as desired (ULO) \geq 1 yr
◆ Calibration Records from OCVs	as desired (ULO)
◆ Vendor Certification Records	2 years
◆ Traceability Records	2 years
◆ Signature Receipt Record	2 years
◆ Disposition Tag Notifications	2 years
◆ MCMS	\geq last 5 calibrations
◆ Listing of Stamps	current

Quality Records Maintained by Using Line Organization (ULO)

- ◆ ULO Calibration Contact List up to date
- ◆ Test Equip and Test Software List up to date
- ◆ ULO Calibration Records as desired
- ◆ Tracking Record as desired ≥ 1 yr
- ◆ Disposition Records as desired ≥ 1 yr

Summary

- ◆ Read the Procedure!
- ◆ Designate CCs and Provide to TM
- ◆ Develop & Maintain a List of Cat. I, II, IV and V IM&TE
- ◆ If ULO Calibrations and/or Software Verifications Are Done You Must Have Procedures That Define the Process
- ◆ Cat I or II IM&TE Must Have a Current Calibration Decal or Limited Use Calibration Decal Before Use
- ◆ Cat IV and V IM&TE Must Be Calibrated Before Use
- ◆ Ask if You Need Help...call Michael Haynes @ 4-7933